AMENDMENT

Amendments to the Claims

1. (Currently Amended) A method of identifying a head position of a patient undergoing diagnostic imaging, comprising:
obtaining a diagnostic image of a patient's head;
performing an automated image processing operation to determine coordinates of a Talairach anterior commissure (AC) - posterior commissure (PC) reference line within the diagnostic image by identifying a line passing through a hard palate on the diagnostic image and utilizing the identified line to approximate the Talairach AC-PC reference line as about 12 degrees more extended than the hard palate in a lateral midline image; and
defining a coordinate system of the diagnostic image with reference to the Talairach AC-PC reference line.

2. (Previously Presented) The method of claim 1, further comprising:
prescribing a subsequent scan based on the identified Talairach AC-PC reference line and coordinate system; and
repeating the automated image processing operation to determine current coordinates of the Talairach AC-PC reference for accommodating changes in patient head position since the previous position determination.

3. (Previously Presented) The method of claim 1, wherein obtaining a diagnostic image comprises obtaining a roll and yaw corrected thin section midsagittal magnetic resonance imaging (MRI) image of the patient's head.

4. (original) The method of claim 3, wherein obtaining a midsagittal MRI image of a patient's head further comprises:
obtaining at least two scout views;
identifying midline features to permit correction of roll and yaw; and
obtaining a midsagittal MRI image based on identified midline features.

5. (original) The method of claim 4, wherein obtaining a midsagittal MRI image of a patient's head when identifying midline features to permit correction of roll and yaw further comprises:
performing at least one rapid scan operatively configured to accentuate venous blood flow in the superior sagittal sinus (SSS) in a plane selected from a group consisting of coronal scan, axial scan and oblique scan of the patient's head;
identifying the SSS in cross-section in the at least one rapid scan;
identifying a line that bisects the brain with the line passing through the SSS cross-section; and
defining an attitude correction selected from a group consisting of roll correction and yaw correction corresponding to the selected plane for subsequent scans based on the identified line that bisects the brain.

6-11. (cancelled)

12. (Previously Presented) The method of claim 1, wherein obtaining a diagnostic image comprises obtaining a lateral computerized tomography (CT) scout image.

13. (original) The method of claim 12, wherein obtaining a lateral CT scout image of a patient's head further comprises physically adjusting patient's head position relative to a scanner that obtains the lateral CT scout image for minimizing roll and yaw visually.

14-17. (Cancelled)

18. (Currently Amended) A program product, comprising:
(a) a program configured to receive a thin section diagnostic image of a patient's brain and to determine coordinates of a Talairach anterior commissure (AC) - posterior commissure (PC) reference line within the thin section diagnostic image and to define a coordinate system of the diagnostic image with reference to the Talairach AC-PC reference line; and

(b) a signal bearing media bearing the program;

wherein the diagnostic image is a lateral computerized tomography (CT) scout image,

wherein the program is further configured to receive a midline sagittal MR scan, and

wherein the program is further configured to:

(a) identify a line passing through the hard palate on the MR scan;

(b) calculate an angle between the patient's hard palate and the Talairach AC-PC reference line in the MR scan;

(c) identify a line passing through the patient's hard palate on the diagnostic image; and,

(d) utilize the calculated angle to adjust a CT pitch prescription.

19. (original) The program product of claim 18, wherein the signal bearing media comprises at least one of a recordable media and a transmission-type media.

20. (cancelled)

21. (Original) The program product of claim 18, wherein determining coordinates of the Talairach AC-PC reference line comprises iteratively searching for and identifying landmarks on the diagnostic image, these landmarks selected from the group consisting of superior sagittal sinus (SSS), corpus callosum, a rostrum of the corpus callosum, an inferior edge splenium of the corpus callosum, mammilary bodies, fornices, and a superior margin of a brainstem.

22. (Original) The program product of claim 18, wherein the diagnostic image is a roll and yaw corrected sagittal image section, and wherein wherein determining coordinates of the Talairach AC-PC reference line comprises:

a) referencing a template dataset with a known Talairach AC-PC reference line; and

b) iteratively minimizing a difference between the sagittal image section and the template dataset.

23. (Original) The program product of claim 22, wherein referencing the template dataset further comprises obtaining a previous scan of the same patient with a known Talairach AC-PC reference line.

24. (Original) The program product of claim 22, wherein referencing the template dataset further comprises obtaining an institutional standard dataset of an averaged template with a known Talairach AC-PC reference line.

25-26. (cancelled)